

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A rotary electric machine comprising:
 a frame;
 a stator whose stator-slot number N_s is 12;
 a rotor whose rotor-pole number N_p is 8, ~~said the rotor and being disposed in a space inside said the stator, and wherein,~~
~~given that said the frame has a frame thickness~~ $T(\theta)$ at mechanical angle θ , with respect to a reference line that connects ~~the an~~ inner circumferential center of the frame with an arbitrary point, other than the center, and the frame thickness around the center is circularly expanded in ~~the a~~ Fourier series as expressed by equation (1),

$$T(\theta) = \sum_{n=0}^{\infty} T_n \cos(n\theta + \phi_n) \quad (1)$$

(~~wherein~~ where n is 0, 1, 2, 3, . . . , T_n is the magnitude of the n -th component of the frame thickness when $T(\theta)$ is expanded in the Fourier series as in equation (1), and ϕ_n is ~~the~~ phase),

~~and that~~ the difference between the stator-slot number N_s and the rotor-pole number N_p is k ($= |N_s - N_p|$), and

stress-relieving spaces ~~provided~~ are located in portions of ~~said the~~ frame in an arrangement that does not have 90-degree mechanical angle rotational symmetry, in such a way that the sum P of inclusion ratios for the k -th component T_k and the N_p -th component T_{N_p} ~~that, which~~ are the Fourier series expansion coefficients for the frame thickness $T(\theta)$ expressed by equation (2)

$$P = (T_k + T_{N_p}) / \sum_{n=0}^{\infty} T_n \times 100 [\%] \quad (2)$$

~~falls under,~~ is less than 12%.

2. (Currently Amended) ~~A~~ The rotary electric machine as recited in claim 1, wherein effective frame thickness is replaced with $2T_0$ when the frame thickness $T(\theta)$ is not smaller than $2T_0$, and then the effective frame thickness, instead of ~~said the~~ frame thickness, is circularly expanded in the Fourier series, where T_0 is the average frame thickness.

3. (Currently Amended) ~~A~~ The rotary electric machine as recited in claim 1, wherein ~~said the~~ stress-relieving spaces are at least either stress-relieving grooves ~~provided~~ located on

the outer and inner circumferences of the frame, or stress-relieving holes ~~provided~~ located in the frame.

4. (Currently Amended) ~~A~~ The rotary electric machine as recited in claim 1, wherein at least a portion of the cross-section of ~~said~~ the stress-relieving spaces in a plane orthogonal to the center axis of the frame inner circumference is shaped in a curved line.

5. (Currently Amended) ~~A~~ The rotary electric machine as recited in claim 1, wherein ~~said~~ the stress-relieving spaces mixedly include holes that are drilled through the frame member and holes not drilled therethrough.

6. (Currently Amended) ~~A~~ The rotary electric machine as recited in claim 1, wherein, the contour of ~~said~~ the frame in a cross-sectional plane orthogonal to the center axis of the frame inner circumference is approximately square.